ANALYSIS OF LAND AREA CALCULATION USING OF GPS TECHNOLOGY

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Abstract

The use of GPS is now widely used by various parties, especially in determining the position of object location. GPS can be used to calculate the result of land areas on wide and flat areas and GPS can be used both at night and day and even it can be used in bad weather conditions. This paper discusses the analysis of the result of land area using of GPS technology with information containing on a land certificate document. The generated GPS coordinates will be converted into units of meter so that length of each side can be known. Meanwhile, Heron formula is used to calculate the wide of a land plot and Research and Development (R & D) as the research method. Meanwhile, the difference of measurement resulted between the land area information of a land certificate and the calculation of a land plot using of GPS technology, possibly caused by the measurement errors made by BPN (National Land Agency), caused by the land position (contours), the difficulty level of an area (existing types of plants) and the usage of GPS. Digital land mapping can help both the National Land Agency (BPN) in particular and wider community in general.

Keywords: National Land Agency (BPN), Heron formula, Global Positioning System (GPS), Google Maps API, Research and Development (R & D)

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